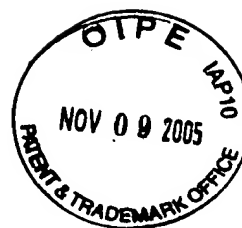


SEQUENCE LISTING



<110> CHEN, WEN Y.
WAGNER, THOMAS E.

<120> BI-FUNCTIONAL CANCER TREATMENT AGENTS

<130> 035879/0120

<140> 09/815,306

<141> 2001-03-23

<150> 60/191,457

<151> 2000-03-23

<160> 34

<170> PatentIn Ver. 3.3

<210> 1

<211> 227

<212> PRT

<213> Homo sapiens

<400> 1

Met	Asn	Ile	Lys	Gly	Ser	Pro	Trp	Lys	Gly	Ser	Leu	Leu	Leu	Leu	Leu
1				5					10						15

Val	Ser	Asn	Leu	Leu	Leu	Cys	Gln	Ser	Val	Ala	Pro	Leu	Pro	Ile	Cys
			20					25					30		

Pro	Gly	Gly	Ala	Ala	Arg	Cys	Gln	Val	Thr	Leu	Arg	Asp	Leu	Phe	Asp
		35					40					45			

Arg	Ala	Val	Val	Leu	Ser	His	Tyr	Ile	His	Asn	Leu	Ser	Ser	Glu	Met
		50				55					60				

Phe	Ser	Glu	Phe	Asp	Lys	Arg	Tyr	Thr	His	Gly	Arg	Gly	Phe	Ile	Thr
65					70					75					80

Lys	Ala	Ile	Asn	Ser	Cys	His	Thr	Ser	Ser	Leu	Ala	Thr	Pro	Glu	Asp
				85					90					95	

Lys	Glu	Gln	Ala	Gln	Gln	Met	Asn	Gln	Lys	Asp	Phe	Leu	Ser	Leu	Ile
		100						105						110	

Val	Ser	Ile	Leu	Arg	Ser	Trp	Asn	Glu	Pro	Leu	Tyr	His	Leu	Val	Thr
		115					120					125			

Glu	Val	Arg	Gly	Met	Gln	Glu	Ala	Pro	Glu	Ala	Ile	Leu	Ser	Lys	Ala
	130					135					140				

Val	Glu	Ile	Glu	Glu	Gln	Thr	Lys	Arg	Leu	Leu	Glu	Gly	Met	Glu	Leu
145					150					155					160

Ile	Val	Ser	Gln	Val	His	Pro	Glu	Thr	Lys	Glu	Asn	Glu	Ile	Tyr	Pro
				165					170						175

Val Trp Ser Gly Leu Pro Ser Leu Gln Met Ala Asp Glu Glu Ser Arg
 180 185 190

Leu Ser Ala Tyr Tyr Asn Leu Leu His Cys Leu Arg Arg Asp Ser His
 195 200 205

Lys Ile Asp Asn Tyr Leu Lys Leu Leu Lys Cys Arg Ile Ile His Asn
 210 215 220

Asn Asn Cys
 225

<210> 2
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 2
 Ile Glu Glu Gln Thr Lys Arg Leu Leu Arg Gly Met Glu Leu Ile Val
 1 5 10 15

Ser Gln Val His Pro
 20

<210> 3
 <211> 21
 <212> PRT
 <213> Rattus sp.

<400> 3
 Ile Glu Glu Gln Asn Lys Arg Leu Leu Glu Gly Ile Glu Lys Ile Ile
 1 5 10 15

Gly Gln Ala Tyr Pro
 20

<210> 4
 <211> 21
 <212> PRT
 <213> Mus sp.

<400> 4
 Ile Glu Glu Gln Asn Lys Gln Leu Leu Glu Gly Val Glu Lys Ile Ile
 1 5 10 15

Ser Gln Ala Tyr Pro
 20

<210> 5
 <211> 21
 <212> PRT
 <213> Cricetus sp.

<400> 5

Ile	Gly	Glu	Gln	Asn	Lys	Arg	Leu	Leu	Glu	Gly	Ile	Glu	Lys	Ile	Leu
1				5					10					15	

Gly	Gln	Ala	Tyr	Pro
			20	

<210> 6

<211> 21

<212> PRT

<213> Cetacea sp.

<400> 6

Glu	Glu	Glu	Glu	Asn	Lys	Arg	Leu	Leu	Glu	Gly	Met	Glu	Lys	Ile	Val
1				5					10					15	

Gly	Gln	Val	His	Pro
			20	

<210> 7

<211> 21

<212> PRT

<213> Mustela sp.

<400> 7

Ile	Glu	Glu	Glu	Asn	Arg	Arg	Leu	Leu	Glu	Gly	Met	Glu	Lys	Ile	Val
1				5					10					15	

Gly	Gln	Val	His	Pro
			20	

<210> 8

<211> 21

<212> PRT

<213> Bos sp.

<400> 8

Ile	Glu	Glu	Gln	Asn	Lys	Arg	Leu	Ile	Glu	Gly	Met	Glu	Met	Ile	Phe
1				5					10					15	

Gly	Gln	Val	Ile	Pro
			20	

<210> 9

<211> 21

<212> PRT

<213> Ovis sp.

<400> 9

Glu	Glu	Glu	Glu	Asn	Lys	Arg	Leu	Leu	Glu	Gly	Met	Glu	Asn	Ile	Phe
1				5					10					15	

Gly	Gln	Val	Ile	Pro
			20	

<210> 10
 <211> 21
 <212> PRT
 <213> Porcine sp.

<400> 10
 Ile Glu Glu Gln Asn Lys Arg Leu Leu Glu Gly Met Glu Lys Ile Val
 1 5 10 15
 Gly Gln Val His Pro
 20

<210> 11
 <211> 21
 <212> PRT
 <213> Camelus sp.

<400> 11
 Ile Glu Glu Gln Asn Lys Arg Leu Leu Glu Gly Met Glu Lys Ile Val
 1 5 10 15
 Gly Gln Val His Pro
 20

<210> 12
 <211> 21
 <212> PRT
 <213> Equus caballus

<400> 12
 Glu Ile Glu Gln Asn Arg Arg Leu Leu Glu Gly Met Glu Lys Ile Val
 1 5 10 15
 Gly Gln Val Gln Pro
 20

<210> 13
 <211> 21
 <212> PRT
 <213> Elephantus sp.

<400> 13
 Val Lys Glu Glu Asn Gln Arg Leu Leu Glu Gly Ile Glu Lys Ile Val
 1 5 10 15
 Asp Gln Val His Pro
 20

<210> 14
 <211> 21
 <212> PRT
 <213> Unknown Organism

<220>

<223> Description of Unknown Organism: Ancestral mammal

<400> 14

Ile Glu Glu Glu Asn Lys Arg Leu Leu Glu Gly Met Glu Lys Ile Val
1 5 10 15

Gly Gln Val His Pro
20

<210> 15

<211> 21

<212> PRT

<213> Gallus sp.

<400> 15

Ile Glu Glu Gln Asn Lys Arg Leu Leu Glu Gly Met Glu Lys Ile Val
1 5 10 15

Gly Arg Val His Ser
20

<210> 16

<211> 21

<212> PRT

<213> Meleagris gallopavo

<400> 16

Ile Glu Glu Gln Asp Lys Arg Leu Leu Glu Gly Met Glu Lys Ile Val
1 5 10 15

Gly Arg Ile His Ser
20

<210> 17

<211> 21

<212> PRT

<213> Turtur sp.

<400> 17

Ile Glu Glu Gln Asn Lys Arg Leu Leu Glu Gly Met Glu Lys Ile Val
1 5 10 15

Gly Gln Val His Pro
20

<210> 18

<211> 21

<212> PRT

<213> Crocodilus sp.

<400> 18

Ile	Glu	Glu	Gln	Asn	Lys	Arg	Leu	Leu	Glu	Gly	Met	Glu	Lys	Ile	Ile
1				5					10					15	

Gly	Arg	Val	Gln	Pro
			20	

<210> 19

<211> 21

<212> PRT

<213> Lacerta sp.

<400> 19

Ile	Glu	Glu	Gln	Asn	Lys	Arg	Leu	Leu	Glu	Gly	Met	Glu	Lys	Val	Ile
1				5					10					15	

Gly	Arg	Val	Gln	Pro
			20	

<210> 20

<211> 21

<212> PRT

<213> Unknown Organism

<220>

<223> Description of Unknown Organism: Ancestral amniote

<400> 20

Ile	Glu	Glu	Gln	Asn	Lys	Arg	Leu	Leu	Glu	Gly	Met	Glu	Lys	Ile	Val
1				5					10					15	

Gly	Gln	Val	His	Pro
			20	

<210> 21

<211> 21

<212> PRT

<213> Xenopus sp.

<400> 21

Val	Glu	Glu	Gln	Asn	Lys	Arg	Leu	Leu	Glu	Gly	Met	Glu	Lys	Ile	Val
1				5					10					15	

Gly	Arg	Ile	His	Pro
			20	

<210> 22

<211> 21

<212> PRT

<213> Rana catesbeiana

<400> 22

Val	Glu	Glu	Gln	Thr	Lys	Arg	Leu	Leu	Glu	Gly	Met	Glu	Arg	Ile	Ile
1				5					10					15	

Gly Arg Ile Gln Pro
20

<210> 23
<211> 21
<212> PRT
<213> Dipnoi sp.

<400> 23
Val Glu Asp Gln Thr Lys Gln Leu Ile Glu Gly Met Glu Lys Ile Leu
1 5 10 15

Ser Arg Met His Pro
20

<210> 24
<211> 21
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Tilapia

<400> 24
Met Gln Gln Tyr Ser Lys Ser Leu Lys Asp Gly Leu Asp Val Leu Ser
1 5 10 15

Ser Lys Met Gly Ser
20

<210> 25
<211> 21
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: Tilapia

<400> 25
Met Gln Glu His Ser Lys Asp Leu Lys Asp Gly Leu Asp Ile Leu Ser
1 5 10 15

Ser Lys Met Gly Pro
20

<210> 26
<211> 21
<212> PRT
<213> Cyprinus carpio

<400> 26
Leu Gln Glu Asn Ile Asn Ser Leu Gly Ala Gly Leu Glu His Val Phe
1 5 10 15

Asn Lys Met Asp Ser
20

<210> 27
<211> 21
<212> PRT
<213> *Cyprinus carpio*

<400> 27
Leu Gln Asp Asn Ile Asn Ser Leu Gly Ala Gly Leu Glu Arg Val Val
1 5 10 15

His Lys Met Gly Ser
20

<210> 28
<211> 21
<212> PRT
<213> *Cyprinus carpio*

<400> 28
Leu Gln Asp Asn Ile Asn Ser Leu Val Pro Gly Leu Glu His Val Val
1 5 10 15

His Lys Met Gly Ser
20

<210> 29
<211> 21
<212> PRT
<213> *Salmonis sp.*

<400> 29
Leu Gln Asp Tyr Ser Lys Ser Leu Gly Asp Gly Leu Asp Ile Met Val
1 5 10 15

Asn Lys Met Gly Pro
20

<210> 30
<211> 21
<212> PRT
<213> *Oncorhynchus tshawytscha*

<400> 30
Leu Gln Asp Tyr Ser Lys Ser Leu Gly Asp Gly Leu Asp Ile Met Val
1 5 10 15

Asn Lys Met Gly Pro
20

<210> 31
 <211> 21
 <212> PRT
 <213> Tructa sp.

<400> 31
 Leu Gln Asp Tyr Ser Lys Ser Leu Gly Asp Gly Leu Asp Ile Met Val
 1 5 10 15

Asn Lys Met Gly Pro
 20

<210> 32
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 32
 Val Tyr Asp Leu Leu Lys Asp Leu Glu Glu Gly Ile Gln Thr Leu Met
 1 5 10 15

Arg Glu Leu Glu Asp Gly
 20

<210> 33
 <211> 22
 <212> PRT
 <213> Bovine sp.

<400> 33
 Val Tyr Glu Lys Leu Lys Asp Leu Glu Glu Gly Ile Leu Ala Leu Met
 1 5 10 15

Arg Glu Leu Glu Asp Gly
 20

<210> 34
 <211> 199
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 amino acid sequence

<400> 34
 Leu Pro Ile Cys Pro Gly Gly Ala Ala Arg Cys Gln Val Thr Leu Arg
 1 5 10 15

Asp Leu Phe Asp Arg Ala Val Val Leu Ser His Tyr Ile His Asn Leu
 20 25 30

Ser Ser Glu Met Phe Ser Glu Phe Asp Lys Arg Tyr Thr His Gly Arg
 35 40 45

